An anisotropically conductive connector suitable for use in a wafer inspection apparatus, and a wafer inspection apparatus comprising the anisotropically conductive connector, which anisotropically conductive connector comprises an elastic anisotropically conductive film composed of a plurality of conductive parts for connection and an insulating part formed among these conductive parts for connection, and a frame plate for supporting this film, which plate is formed of a metallic material having a coefficient of linear thermal expansion of 3×10^{-6} to 2×10^{-5} K⁻¹, the conductive parts for connection are obtained by filling conductive particles having a number average particle diameter of 20 to 80 μ m and exhibiting magnetism in an elastic polymeric substance at a high density, the conductive particles have, on a surface of which, a coating layer composed of a noble metal and having a thickness of at least 20 nm, each of the conductive parts for connection has a durometer hardness of 10 to 35, and an electric resistance between the conductive parts for connection is at least 10 M Ω .